NeMO 2005 Deployments and Recoveries at Axial Caldera EM300 bathymetry data. 35 meter grid cell size. 5 meter contour interval. 45' 58'N 130° 01'W 130° 00'W 129° 59'W 1550 BPR-center-03 Recovered'05 45° 57'N BPR-center-04 Deployed'04 Real-time link with NeMO Net buoy BPR-mid-05 Deployed'05 NeMO Net buoy Deployed'04 45° 56'N RAS-Virgin-04 BPR-south-03 Recovered'05 Recovered'05 Distance (kilometers)

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| Operations Log Nemo 2005 Cruise W0505A - R/V <i>Wecoma</i> - Axial Volcano - May 10 - May 12 | | | | | | | | |
|--|---------------|---|------------------|--------------|---------------|---------------|--|--|
| Date (PST) | Time (PST) | Comments | Lat (de g) | Lat (min) | Long (deg) | Long (min) | | |
| PST is 7 | hours bel | hind UTC | | | | | | |
| 10- May 11- | 800 | Depart Newport | | | | | | |
| May | 700 | Arrive Axial | | | | | | |
| iviay | 710 | Released BPRsouth03 | 45 | 56 | 130 | 0 | | |
| | 750 | BPR at the surface. | | 00 | 100 | | | |
| | 800 | BPR-south-03 on deck. | | | | | | |
| nemoe4.dat data file showed that the flash card was not functioning. Have pressure period all the way thru the year but height (mm) and temperature period stopped on 9/3/03. Have the temp data in deg C and pressure period (tidal fluctuations). On Scott Stalin's advice, it was not re-deployed. | | | | | | | | |
| | 832 | Sent RAS release code. Confirmed and coming up at 35 m/min. | | | | | | |
| | 930 | RAS at the surface (was at Virgin) | 45 | 56.019 | 130 | 0.809 | | |
| | 950 | RAS on board. | | | | | | |
| RAS collected samples in all bottles, except for one (#17 had a closed valve). Removed intake lines and T1 cable. Removed Eh sensor and soaked in water. In situ preserved DNA filters were frozen immediately. Water samples were put on ice. GFF filters were rinsed with ~5ml MQ, suction dried, and air dried in petri slides. | | | | | | | | |
| | 1130 | BPR-center-03 at the surface | 45 | 57.313 | 130 | 0.61 | | |
| | 1140 | BPR-center-03 on board | | | | | | |
| nem4oe3.dat data file showed a drop out point at the same time and day that the nemoe4.dat file showed a drop out. After that point the data came back and looks OK. | | | | | | | | |
| | 1300 | CTD cast 1 at ASHES (cast01.dat) in the water. | 45 | 56.016 | 130 | 0.828 | | |
| At 1550 m we saw a slight temperature and transmissometer spike. Filled 12 bottles, but bottles 4 and 6 didn't fill. Seasav2 is the program the marine techs were using (Marc and Dave are the techs). | | | | | | | | |
| | 1405 | CTD cast 1 at ASHES back on deck. | | | | | | |
| For processing of CTD water, we are taking pH samples in 60ml bottles by filling from a tube with no air and capping. Also took total dissolvable metal samples in 250ml or 500ml acid cleaned hdpe bottles. TM bottles were rinsed 3 times and then filled. | | | | | | | | |

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|---|---------------|---|------------------|--------------|---------------|---------------|--|
| Date (PST) | Time (PST) | Comments | Lat (de g) | Lat (min) | Long (deg) | Long (min) | |
| | 1440 | Lining up to deploy BPRmiddle05 | | | | | |
| | 1445 | BPRmiddle05 in the water. | | | | | |
| | 1448 | Drop position at the stern. 186 deg bearing. | 45 | 56.559 | 130 | 0 | |
| | | lso known as E-3 by PMEL engineers) has a m BPRcenter03 was used in BPRmiddle05. | | | | | |
| | 1520 | CTD cast 2 at Mkr-N3 (cast02.dat) in the water. | 45 | 56.628 | 129 | 59.112 | |
| | 1632 | CTD cast 2 at Mkr-N3 back on deck. | | | | | |
| | 1700 | CTD cast 3 at Snail (cast03.dat) in the water. | 45 | 55.992 | 129 | 58.914 | |
| | 1818 | CTD cast 3 at Snail back on deck | | | | | |
| | 1838 | CTD cast 4 Background (cast04.dat) in the water. | 45 | 56.3 | 130 | 0 | |
| | 1950 | CTD cast 4 Background back on deck. | | | | | |
| | 2000 | Heading back to Newport. | | | | | |
| 12- May | 1815 | Back at the pier in Newport. End of cruise. | | | | | |

NeMO Instrument Positions

| Instrument / | Long | Long | Lat | | | Deployed / |
|---------------------|-------|---------|-------|-----------|-------|-----------------|
| Experiment | (deg) | (min) | (deg) | Lat (min) | Z (m) | Recovered |
| Buoy-04 | 130 | 0.4998 | 45 | 56.65 | | Depl NeMO'04 |
| | | | | | | Depl 10/31/04 |
| BPR-center-04 | 130 | 00.50 | 45 | 57.10 | | (postcruise'04) |
| | | | | | | Depl NeMO'03 / |
| BPR-center-03 | 130 | 0.61 | 45 | 57.313 | 1534 | Rec NeMO'05 |
| | | | | | | Depl NeMO'03 / |
| BPR-south-03 | | | | | | Rec NeMO'05 |
| BPR-middle-05 (E-3) | 130 | 0 | 45 | 56.559 | | Depl NeMO'05 |
| | | | | | | Depl NeMO'04 / |
| RAS-04 (at Virgin) | 130 | 0.80899 | 45 | 56.019 | 1547 | Rec NeMO'05 |